What is claimed is:

[Claim 1] 1. A method of controlling an aircraft in a turn without the use of a rudder by producing induced yaw, comprising: creating a net induced drag differential between an inboard wing to the turn and an outboard wing to the turn, whereby the net induced drag differential overcomes adverse yaw produced by the outboard wing.

[Claim 2] 2. The method of claim 1, wherein the net induced drag differential is produced by controlling the aircraft such that the induced drag experienced by the inboard wing is greater than the induced drag experienced by the outboard wing.

[Claim 3] 3. The method of claim 1, further including:

increasing the effective aspect ratio of the outboard wing to reduce downwash coming off the outboard wing and reduce the induced drag experienced by the outboard wing; and

decreasing the effective aspect ratio of the inboard wing to increase downwash coming off the inboard wing and increase the induced drag experienced by the inboard wing.

[Claim 4] 4. The method of claim 1, further including:

spoiling a tip vortex on the outboard wing to reduce downwash coming off the outboard wing and reduce the induced drag experienced by the outboard wing; and

increasing a tip vortex on the inboard wing to increase downwash coming off the inboard wing and increase the induced drag experienced by the inboard wing.

[Claim 5] 5. The method of claim 3, further including:

spoiling a tip vortex on the outboard wing to reduce downwash coming off the outboard wing and reduce the induced drag experienced by the outboard wing; and

increasing a tip vortex on the inboard wing to increase downwash coming off the inboard wing and increase the induced drag experienced by the inboard wing.

[Claim 6] 6. The method of claim 2, further including providing adaptive control surfaces as part of the inboard and outboard wings to form a variable planform to affect the induced drag of each of the inboard and outboard wings and produce the net induced drag differential to overcome adverse yaw produced by the outboard wing.

[Claim 7] 7. The method of claim 3, further including providing adaptive control surfaces as part of the inboard and outboard wings to form a variable planform to affect the effective aspect ratio of each of the inboard and outboard wings and produce the net induced drag differential to overcome adverse yaw produced by the outboard wing.

[Claim 8] 8. The method of claim 4, further including providing adaptive control surfaces as part of the inboard and outboard wings to form a variable planform to affect the tip vortex and induced drag of each of the inboard and outboard wings and produce the net induced drag differential to overcome adverse yaw produced by the outboard wing.

[Claim 9] 9. The method of claim 5, further including providing adaptive control surfaces as part of the inboard and outboard wings to form a variable planform to affect the tip vortex and induced drag of each of the inboard and outboard wings and produce the net induced drag differential to overcome adverse yaw produced by the outboard wing.

[Claim 10] 10. The method of claim 1, further including providing adaptive control surfaces which are adjustable coplanar winglets on ends of each of the inboard and outboard wings, the coplanar winglets being independently adjustable in area size on the ends of each of the inboard and outboard wings; increasing the area size of the coplanar winglet on the outboard wing to increase effective aspect ratio of the outboard wing to lower the induced drag coefficient and the induced drag experienced by the outboard wing; and decreasing the area size of the coplanar winglet on the inboard wing to lower the effective aspect ratio of the inboard wing to increase the induced drag coefficient and the induced drag experienced by the inboard wing.

[Claim 11] 11. The method of claim 2, further including providing adaptive control surfaces which are adjustable coplanar winglets on ends of each of the inboard and outboard wings, the coplanar winglets being independently adjustable in area size on the ends of each of the inboard and outboard wings; increasing the area size of the coplanar winglet on the outboard wing to increase effective aspect ratio of the outboard wing to lower the induced drag coefficient and the induced drag experienced by the

outboard wing; and decreasing the area size of the coplanar winglet on the inboard wing to lower the effective aspect ratio of the inboard wing to increase the induced drag coefficient and the induced drag experienced by the inboard wing.

[Claim 12] 12. The method of claim 3, further including providing adaptive control surfaces which are adjustable coplanar winglets on ends of each of the inboard and outboard wings, the coplanar winglets being independently adjustable in area size on the ends of each of the inboard and outboard wings; increasing the area size of the coplanar winglet on the outboard wing to increase effective aspect ratio of the outboard wing to lower the induced drag coefficient and the induced drag experienced by the outboard wing; and decreasing the area size of the coplanar winglet on the inboard wing to lower the effective aspect ratio of the inboard wing to increase the induced drag coefficient and the induced drag experienced by the inboard wing.

[Claim 13] 13. The method of claim 4, further including providing adaptive control surfaces which are adjustable coplanar winglets on ends of each of the inboard and outboard wings, the coplanar winglets being independently adjustable in area size on the ends of each of the inboard and outboard wings; increasing the area size of the coplanar winglet on the outboard wing to increase effective aspect ratio of the outboard wing to lower the induced drag coefficient and the induced drag experienced by the outboard wing; and decreasing the area size of the coplanar winglet on the inboard wing to lower the effective aspect ratio of the inboard wing to increase the induced drag coefficient and the induced drag experienced by the inboard wing.

[Claim 14] 14. The method of claim 5, further including providing adaptive control surfaces which are adjustable coplanar winglets on ends of each of the inboard and outboard wings, the coplanar winglets being independently adjustable in area size on the ends of each of the inboard and outboard wings; increasing the area size of the coplanar winglet on the outboard wing to increase effective aspect ratio of the outboard wing to lower the induced drag coefficient and the induced drag experienced by the outboard wing; and decreasing the area size of the coplanar winglet on the inboard wing to lower the effective aspect ratio of the inboard wing to increase the induced drag coefficient and the induced drag experienced by the inboard wing.

[Claim 15] 15. The method of claim 14, further including providing coplanar winglets hinged to the ends of the inboard and outboard wings, whereby the coplanar winglets rotate about the ends of the inboard and outboard wings.

[Claim 16] 16. The method of claim 14, further including providing telescoping coplanar winglets at the ends of the inboard and outboard wings, whereby the coplanar winglets move in and out of the ends of the inboard and outboard wings.

[Claim 17] 17. The method of claim 14, further including providing coplanar winglets at the ends of the inboard and outboard wings, whereby the coplanar winglets fan out into a larger size from the ends of the inboard and outboard wings.

[Claim 18]

18. Flight control device comprising:

a coplanar winglet on an end of an outboard wing of an aircraft in a turn;

a coplanar winglet on an end of an inboard wing of an aircraft in the turn; and

said coplanar winglets configured to be independently adjustable in area size on said ends of each of said inboard and outboard wings to increase said area size of said coplanar winglet on said outboard wing to increase effective aspect ratio of said outboard wing in order to lower induced drag coefficient and induced drag experienced by said outboard wing and to decrease said area size of said coplanar winglet on said inboard wing to lower effective aspect ratio of said inboard wing to increase induced drag coefficient and induced drag experienced by the inboard wing.

[Claim 19] 19. The method of claim 18, wherein said coplanar winglets are hinged to said ends of said inboard and outboard wings, whereby said coplanar winglets rotate about said ends of said inboard and outboard wings.

[Claim 20] 20. The method of claim 18, wherein said coplanar winglets are telescoping coplanar winglets at said ends of said inboard and outboard wings, whereby said coplanar winglets move in and out of said ends of said inboard and outboard wings.

[Claim 21] 21. The method of claim 18, wherein said coplanar winglets are fanned articulated surfaces to fan out into a larger size from said ends of said inboard and outboard wings.